

REMARKS

In the Advisory Action mailed March 11, 2005, the Patent Office states that the request for reconsideration has been considered, but does not place the application in condition for allowance because:

Applicant argues that “Fujihira fails to disclose a three-layer stack including an oxide layer formed directly on a substrate, an adhesion layer formed on the oxide layer and a first passivation layer formed on the adhesion layer.” However, it appears that Fujihira et al. (“Fujihira”) discloses a three layer stack (For Example: See Page 2). Fujihira discloses the following: a) a silicon oxide (8) film formed on a substrate; b) a silicon oxy-nitride (11) formed film on a silicon oxide film; and c) forming a bonding electrode that adheres well to a silicon nitride film (SiN) on said silicon oxy-nitride film. Although Fujihira does not specifically disclose a three layer structure in the drawings, it appears that a third layer layer is disclosed in claim 1. It appears that there is a silicon nitride layer on the silicon oxy-nitride film.

Applicants amend Claim 17 as follows:

a substrate comprising at least one level of interconnection;
an insulating layer formed directly on a surface of the substrate;
at least one conductive structure formed directly on the insulating layer, the
conductive structure comprising a contact to the at least one level of interconnection
of the substrate;
an adhesion layer formed over a top surface of said insulating layer; and
a first passivation layer formed on a top surface of said adhesion layer and a
top surface of the conductive structure. (Emphasis added.)

Claim 17 is not anticipated by or obvious over Fujihira. As illustrated by FIGS. 1 and 2 of Fujihira, a pad 12 is either formed on a thin film layer 11, as shown in FIG. 1, a silicon nitride layer as shown in FIG. 2 or a silicon nitride film on the silicon oxynitride layer, as recited by Claim 1 of Fujihira. Conversely, as indicated by the above-recited features of Claim 17, a conductive structure is formed directly on the insulating layer and an adhesion layer is formed over a top surface of the insulating layer with a first passivation layer formed on a top surface of the adhesion layer.

The case law establishes that anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, as arranged in the claim. Lindemann Maschinenfabrik v. American Hoist & Derrick (“Lindemann”), 730 F.2d 452, 1458 (Fed. Cir. 1994). Here, Applicants respectfully submit that Fujihira fails to teach the formation of pad 12 on either silicon oxide film 8, as shown in FIG. 1, thin film 11, as shown in FIG. 2, or silicon oxide film, as recited by Claim 1 of Fujihira. Hence, Applicants respectfully submit that Applicants’ amendments to Claim 17 prohibit the Patent Office from establishing a *prima facie* case of anticipation using Fujihira as an anticipatory reference since Fujihira fails to disclose the above-recited features of Claim 17, as amended. Id.

Accordingly, Applicants respectfully submit that Claim 17, as amended, is patentable over Fujihira, as well as the references of record. Consequently, Applicants respectfully request that the

Patent Office allow amended Claim 17, as well as Claims 18-22 and 25-26, based on their dependency from Claim 17.

Regarding Claim 23, Claim 23 is amended to recite a four layer stack, including:

a photodefinable polyimide soft passivation layer formed on said silicon nitride hard passivation layer. (Emphasis added.)

As indicated by the Patent Office, a third layer is disclosed in Claim 1 of Fujihira, which recites a silicon nitride layer on the silicon oxynitride film. Assuming, arguendo, the above is true, Applicants respectfully submit that the specification of Fujihira, including FIGS. 1 and 2 and Claims 1 and 2, fail to disclose a four layer stack including a fourth layer comprised of a photodefinable polyimide soft passivation layer, which is formed on a silicon nitride hard passivation layer, as recited by amended Claim 23.

Accordingly, Applicants respectfully submit that Applicants' amendment to Claim 23 is not anticipated by Fujihira, since Fujihira fails to disclose the four layer stack, as recited by amended Claim 23. *Id.* Claim 23 is also not *prima facie* obvious over Fujihira.

Therefore, Applicants respectfully submit that Claim 23, as amended, is patentable over Fujihira, as well as the references of record. Consequently, Applicants respectfully request that the Patent Office allow amended Claim 23.

Regarding Claim 27, Claim 27 is amended to recite:

an insulating layer formed on the substrate;
at least one conductive structure formed directly on the insulating layer;
a composite film comprising:
a first layer formed from a modification of a portion of the insulating layer,
and
a second layer of a material different than a material of the first layer,
wherein the first layer is disposed between the insulating layer and
the second layer, and
wherein the first layer and the second layer comprise one common
chemical element other than silicon; and
wherein the second layer is a passivation layer formed on the first
layer. (Emphasis added.)

For at least the reasons described above with reference to amended Claim 17, Applicants respectfully submit that Claim 27 is not anticipated by Fujihira, since Fujihira fails to teach a conductive structure formed on an insulating layer, as recited by Claim 12. Conversely, pad 12, as taught by Fujihira, is formed on either a silicon nitride film 9, as shown in FIG. 2, and recited by Claim 1 or a thin film 11, as shown in FIG. 1 of Fujihira.

Accordingly, for at least the reasons described above, Applicants respectfully submit that Claim 27, as amended, is patentable over Fujihira, as well as the references of record. Consequently, Applicants respectfully request that the Patent Office allow Claim 27, as amended, as well as Claims 28 and 29, based on their dependency from Claim 27.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending patentably define the subject invention over the prior art of record and are in condition for allowance, and such action is earnestly solicited at the earliest possible date.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

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By: _____

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CERTIFICATE OF MAILING:

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on March 22, 2005

Marilyn Bass

March 22, 2005